

**REMARKS / ARGUMENTS**

The present application includes pending claims 1-27. Claims 22 and 25-26 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. By this Amendment, claims 1 and 20 have been amended, as set forth above, to correct for minor typographical errors. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-14 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1, 4-5, 8-9, 20, 24 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0141441, issued to Neumann, et al. (hereinafter, Neumann), in view of U.S. Patent No. 6,594,242, issued to Kransmo, et al. (hereinafter, Kransmo). Claims 2, 10-15, 17-19, 21 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Kransmo and further in view of U.S. Patent No. 5,251,220, issued to Schutte (hereinafter, Schutte). Claims 16 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Kransmo and further in view of Schutte and still further in view of U.S. Patent No. 6,098,178, issued to Moretti, et al. (hereinafter Moretti). The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

**CLAIMS REJECTION UNDER 35 U.S.C. § 112**

The Applicant first turns to the rejection of claims 1-14 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The Examiner states the following in the Final Office Action:

Independent claims 1 and 9 have been amended to contain new matter. The phrase "host baseband processor enables timing of synchronization" has been added to independent claims 1 and 9 has not been described in the specification.

See the Final Office Action at page 2. Initially, the Applicant points out that the correct phrase that has been used throughout the specification is "timing synchronization" and not "timing of synchronization." Therefore, the Applicant has amended claims 1 and 20 to correct this minor typographical error. With regard to the phrase "host baseband processor enables timing synchronization," the Examiner is referred to, for example, at least the following citation from the "Summary of the Invention" section of the Present Application:

A synchronization arrangement is provided for establishing timing synchronization between the first and second wireless communications systems within the device on the basis of timing information transferred to the host baseband processor from the baseband co-processor. **In a particular implementation establishing such timing synchronization involves issuing, from the host baseband processor, a timer capture interrupt to the baseband co-processor during a predetermined timer phase of said first wireless communications system.** In response, the baseband co-processor provides the host baseband processor with at least one timer value pertinent to a timing state of the second wireless communications system.

See the Present Application, page 5, lines 11-19. As it may be seen from the above citation, in one exemplary implementation, it is the host baseband processor that enables and establishes the timing synchronization. The Examiner is also referred for support to, for example, Figures 11-13 of the present application, and the corresponding disclosure (page 19, line 24 through page 21, line 31), which support the above limitation.

#### **CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

See MPEP at § 2142, citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination," and that "although a prior art device 'may be capable of being modified to run the way the

apparatus is claimed, there must be a *suggestion or motivation in the reference to do so*" (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion..., " citing *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

**I. The Proposed Combination of Neumann and Kransmo Does Not Render Claims 1, 4-5, 8-9, 20, 24 and 27 Unpatentable**

The Applicant turns to the rejection of claims 1, 4-5, 8-9, 20, 24 and 27 as being unpatentable over Neumann in view of Kransmo.

**A. The Proposed Combination Does Not Teach or Suggest "Said Host Baseband Processor Enables Timing Synchronization ... On The Basis Of Timing Information Transferred To Said Host Baseband Processor From Said Baseband Co-Processor"**

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Neumann and Kransmo does not disclose or suggest at least the limitation of "said host baseband processor

enables timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co-processor," as recited by the Applicant in independent claim 1 (emphasis added).

Neumann discloses a wireless telephone that includes a first and second baseband processors. The first baseband processor (GSM) functions as a system master, and the second processor (TDMA) functions as a system slave. The first baseband processor interfaces to the system controls, such as power supply, man machine interface (MMI), and the like. See Neuman at Abstract.

The Final Office Action concedes on page 4 thereof, that "Neumann does not specifically disclose **timing synchronization** between the first and second wireless communications systems **on the basis of timing information transferred to said host baseband processor from said baseband co-processor."** To overcome this deficiency, the Final Office Action relies on Kransmo.

Kransmo discloses "A method, node and wireless communication terminal for providing handover and roaming from a 3G communication system to a 2G communication system." See Kransmo at Abstract. The Applicant notes that Examiner is specifically relying on Kransmo to teach that **synchronization** between a first and a second wireless communications systems **occurs on the**

**basis of timing information transferred to a host baseband processor from a baseband co-processor.** To support this argument, the Examiner is citing extensively from Kransmo, using Figures 1-3, the Abstract, col. 1, lines 41-44, 50-67, col. 2, lines 1-32, col. 4, lines 10-20, col. 4, lines 30-56, and col. 5, lines 7-21. See the Office Action at page 4. The Applicant has reviewed all of the above citations as well as the remainder of Kransmo, and has been unable to identify where Kransmo discloses that synchronization between first and a second wireless communications systems occurs on the basis of timing information transferred to a host baseband processor from a baseband co-processor, as claimed by the Applicant in claim 1. In addition, according to the Examiner, Kransmo discloses that "a 3G mobile terminal *can synchronize with a GSM carrier based on the frame timing* in order to handover or roam..." See the Final Office Action at page 3, citing Kransmo. In this regard, the Examiner has taken the position that **Kransmo discloses that synchronization for purposes of handover is based on frame timing. Accordingly, by the Examiner's own admission, it is not based on timing information transferred from the host processor to the baseband co-processor.**

After making the extensive citation from Kransmo, the Examiner further states:

Note that synchronization takes place between two processors. It is well known in the art that synchronization takes place between two processors only when both processors permit that synchronization

process, thus both processors enable the process of synchronization. Otherwise, in case one of the processors is unable to permit synchronization, in other words one of the processors doesn't enable synchronization, then the synchronization wouldn't take place. Thus, it is inherent that the host baseband processor enables timing of synchronization.

See the Final Office Action at page 4. The Applicant would like to emphasize that **the important issue here is not whether or not Kransmo enables timing synchronization, but how timing synchronization is in fact achieved.** For example, the Applicant achieves timing synchronization on the basis of timing information that is transferred from the host baseband processor to the baseband co-processor, as recited in claim 1. As previously pointed out by the Applicant, **Kransmo does not disclose or suggest timing synchronization on the basis of timing information that is transferred to the host baseband processor from the baseband co-processor**, as recited in claim 1.

Since Kransmo is silent as to how timing synchronization is achieved, the Examiner is relying on inference and states the following:

... Inherently during the roaming process from a 3G system to a 2G system the dual-mobile terminal switches communication operations from a first processor that processes communications of 3G type to a second processor that processes communications of a 2G type so that the call is successfully handed over. Further note that synchronization takes place between the two different systems. In order for this synchronization to take place, **the processor processing the 3G communications inherently sends timing information to the processor that processes the 2G communications**, thus synchronization between two systems takes place on the basis of timing information transferred from the 3G processor to the 2G processor) (emphasis added).

*See id.* Based on this statement, the Examiner appears to be using inherency for rejecting Claim 1 with regard to Kransmo.

The Applicant points out that the Final Office Action, including the Examiner's "Response to Arguments" section, is silent as to Applicant's inherency argument (See the December 8, 2006 response at pages 22-24) with regard to the assertion that "the processor processing the 3G communications inherently sends timing information to the processor that processes the 2G communications." The Applicant respectfully maintains the traversal of this assertion of inherency.

The Applicant submits that a rejection based on inherency must include a statement of the rationale or evidence tending to show inherency. See Manual of Patent Examining Procedure at § 2112.

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic."

*See id. citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.



*In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Applicant respectfully submits that neither Neumann itself nor the Office Action "make[s] clear that the missing descriptive matter," said to be inherent "is necessarily present in Neumann.

A rejection based on inherency must be based on factual or technical reasoning:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Applicant respectfully submits that the Office Action does not contain a basis in fact and/or technical reasoning to support the rejection based on inherency. Instead, as recited above, at least claim 1 of the present application stands rejected based on a conclusory statement of inherency, rather than upon a "basis in fact and/or technical reasoning." Accordingly, the Applicant respectfully submit that, absent a "basis in fact and/or technical reasoning" for the rejection of record, that rejection should be reconsidered and withdrawn.

Therefore, neither Neumann nor Kransmo disclose or suggest that "host baseband processor enables timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co-processor," as recited by

the Applicant in independent claim 1. Accordingly, the proposed combination of Neumann and Kransmo does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 9 and 20 are similar in many respects to the device disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 9 and 20 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

**B. Rejection of Dependent Claims 4-5, 8, 24 and 27**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Kransmo has been overcome and requests that the rejection be withdrawn. Additionally, claims 4-5, 8, and 24 and 27 depend from independent claims 1, 9, and 20, respectively, and are also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1, 4-5, 8-9, 20, 24 and 27.

**II. The Proposed Combination of Neumann, Kransmo and Schutte Does Not Render Claims 2, 10-15, 17-19, 21 and 23 Unpatentable**

The Applicant turns to the rejection of claims 2, 10-15, 17-19, 21 and 23 as being unpatentable over Neumann in view of Kransmo and Schutte.

**A. The Proposed Combination Does Not Teach or Suggest "Generating Within A Multi-Mode Communication Device, A Timer Capture Interrupt During A Predetermined Timing Phase Of A First Wireless Communication System"**

With regard to the rejection of independent claim 15 under 103(a), the Applicant submits that the combination of Neumann and Kransmo does not disclose or suggest at least the limitation of **"generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system,"** as recited by the Applicant in independent claim 15 (emphasis added).

In regard to claim 15, the Final Office Action, at page 9, concedes the following:

Neumann does not specifically disclose a timer capture interrupt during a predetermined timing phase, storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to timer capture interrupt, reading the timer value, and determining a timing relationship between first and second wireless communication systems based upon timer value.

The Examiner then relies on Schulte for the deficiencies of Neumann, and states the following:

Schutte discloses a timer capture interrupt during a predetermined timing phase, storing a timer value of at least one time pertinent to operation of second communication system in response to timer capture interrupt and reading the timer value (col. 4, line 65 through col. 5, line 18, and col. 2, lines 7-32, "timer capture interrupt", "synchronizing", note that a timer capture interrupt signal is provided to alert the system controller read the event report and to determine the absolute time of the event).

See *id.* The Examiner also states the following in his "Response to Arguments" section:

The only element that the combinations of Neumann/Kransmo do not specifically mention in their inventions is "a timer capture interrupt". *"Timing capture interrupt" concept has been very well known in the art for many years (as described clearly in Schutte).* One skilled in the art of Electrical and Computer Engineering would have easily been able to realize and combine the well known concept of timing capture interrupt into that of the combinations of Neumann/Kransmo.

See the Final Office Action at page 14. Initially, the Applicant disagrees with the above characterization of the deficiencies of Neumann/Kransmo. The Applicant would like to add that the **Neuman/Kransmo combination not only does not teach "timing capture interrupt", but also does not teach at least the limitation of "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system."** Consequently, to correct this deficiency in the Neumann/Kransmo combination, the Examiner is relying on Schutte.

The Applicant is uncertain what the Examiner means by the assertion that "timing capture interrupt" concept is clearly described in Schutte. The Applicant

respectfully disagrees with this assertion and maintains that Schutte does not disclose **"generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system,"** as recited in claim 1. In fact, Schutte does not disclose or suggest a multi-mode communication device that communicates via a first and a second wireless communication protocol, as claimed by the Applicant in claim 15.

Furthermore, after careful review of the above citations used by the Examiner (col. 4, line 65 through col. 5, line 18, and col. 2, lines 7-32), as well as the remainder of Schutte, the Applicant has been unable to identify where Schutte discloses the limitation of **"generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system,"** as recited by the Applicant in independent claim 15.

For example, Schutte discloses, at col. 2, lines 7-32, that a microprocessor may use a clock to monitor data for a synchronizing word or sequence of bits. **This does not relate in any way to generating a timer capture interrupt, storing a timer value based on the interrupt, and determining a timing relationship between a first and second wireless communication systems based on the timer value,** as claimed by the Applicant in claim 15. Similarly, Schutte discloses, at col. 4, line 65 - col. 5, line 18, that an interrupt is provided "when an edge is detected and stores the value of the free running counter in a

register so that the time of the edge can be determined when the interrupt is serviced." In this regard, this citation also does not support the above limitation of the Applicant's claim 15.

Accordingly, the proposed combination of Neumann, Kransmo and Schutte does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

**B. The Proposed Combination Does Not Teach or Suggest "Determining A Timing Relationship Between Said First And Second Wireless Communication Systems Based Upon Said Timer Value"**

With regard to the rejection of independent claim 15 under 103(a), the Applicant submits that the combination of Neumann and Schutte does not disclose or suggest at least the limitation of **"determining a timing relationship between said first and second wireless communication systems based upon said timer value,"** as recited by the Applicant in independent claim 15 (emphasis added).

The Examiner concedes the following:

The combination of Neumann/Schutte does not specifically disclose determining a timing relationship between first and second wireless communication systems based upon timer value.

See the Final Office Action at page 11. The Examiner relies for support on Kransmo and states the following:

Kransmo discloses determining a timing relationship between first and second wireless communication systems based upon timer value (abstract, col. 1, lines 41-44, 50-67, col. 2, lines 1-32, col. 4, lines 10-20, col. 4, lines 30-56, col. 5, lines 7-21, **"timing of WCDMA timeframes 54 and GSM TDMA timeframes 50"**, "a 3G mobile terminal can synchronize with a GSM carrier based on the frame timing in order to handover or roam", "the MS 12 synchronizes 3G with the 2G network", "dual-mode wireless mobile... that operate in both 2G and 3G", "handover and roaming of a wireless terminal from a third generation... to a second generation (2G) communication system", "faster synchronization between networks").

See *id.* The Applicant points out that Figure 2 of Kransmo discloses a timing diagram of the WCDMA timeframes 54 and the GSM TDMA timeframes 50 and 52, allegedly illustrating how a 3G mobile terminal can synchronize with a GSM carrier based on the frame timing in order to handover or roam. See Kransmo, col. 4, lines 30-35. In other words, Kransmo allegedly uses the wireless frame timing.

The Examiner is referred again to claim 15, which recites "storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to said timer capture interrupt." In other words, the Applicant's claim 15 recites that a timer value is stored in response to a timer capture interrupt. In contrast, Kransmo does not disclose the use of timer capture interrupt and does not disclose the storing of the separate

**timer value, which is used for “determining a timing relationship between said first and second wireless communication systems,” as recited in claim 1.**

Accordingly, the proposed combination of Neumann, Kransmo and Schutte does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

**C. Rejection of Dependent Claims 2, 10-14, 17-19, 21 and 23**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 15 and 20 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection be withdrawn. Additionally, claims 2, 10-14, 17-19, 21 and 23 depend from independent claims 1, 9, 15 and 20, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 10-15, 17-19, 21 and 23.



**D. Rejection of Dependent Claims 16 and 27**

Claims 16 and 27 depend from independent claims 15 and 20, respectively, and are, consequently, also respectfully submitted to be allowable at least for the reasons stated above.

Based on at least the foregoing, the Applicant believes the rejection of dependent claims 16 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Kransmo, and further in view of Schutte and still further in view of Moretti has been overcome and requests that the rejection be withdrawn.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 16 and 27.

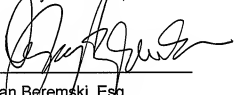
CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-27 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,



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